



Practitioner's Pocket No. 56761 (71526)

IN THE UNITED STATES DESIGNATED OFFICE (DO/US)

PCT/IP01/03756 1 May 2001 12 May 2000
INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE PRIORITY DATE CLAIMED

INTERSTRAND-CROSSLINKING AGENTS FOR DNA AND COMPOUNDS THEREFOR
TITLE OF INVENTION

Hiroshi SUGIYAMA, Toshikazu BANDO, Hirokazu IIDA, Isao SAITO
APPLICANT(S) FOR DO/US

Box PCT
Assistant Commissioner for Patents
Washington, D.C. 20231
ATTENTION: DO/US

**COMPLETION OF FILING REQUIREMENTS
FOR INTERNATIONAL APPLICATION ENTERING NATIONAL
STAGE IN U.S. DESIGNATED OFFICE (DO/US) UNDER 35 U.S.C. 371**

(check and complete the following item, if applicable)

- ☒ This replies to the Notice of Missing Requirements under 35 U.S.C. § 371 and 37 C.F.R. 1.494 (FORM PCT/DO/EO/905).
☒ A copy of FORM PCT/DO/EO/905 accompanies this response.

WARNING: *Filing requirements, including translation of the international application, the declaration, the national fee and the payment of all the surcharge(s) in connection with the filing of these items after twenty (20) months from the priority may be met within twenty-two (22) months from the priority date. Failure to comply with these requirements Will result in abandonment. The provisions of 37 CFR 1.136 for extensions of time do not apply to the 22 month period. 37 CFR 1.61(b).*

CERTIFICATION UNDER 37 C.F.R. 1.10*
(Express Mail label number is mandatory.)
(Express Mail certification is optional.)

I hereby certify that this Completion of Filing Requirements and the papers indicated as being transmitted therewith is being deposited with the United States Postal Service on this date May 23, 2002, in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EV097154991US, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Susan M. Dillon
(type or print name of person mailing paper)

Susan M Dillon
Signature of person mailing paper

WARNING: *Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.*

***WARNING:** *Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).
"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.*

NOTE: The completion of the filing requirements within 22 months (instead of 20 months) from the priority date results from the Commissioner exercising his judgment under the authority granted under 35 USC 371(d). The filing receipt will show the actual date of receipt of the last item completing the entry into the national phase. See 37 CFR 1.491 which states: "An international application enters the national stage when the applicant has filed the documents and fees required by 35 USC 371(c) within the periods set forth in § 1.494 and § 1.495."

WARNING: Where the items being submitted to complete the entry of the international application into the national phase are subsequent to 20 months from the priority date, the application is still considered to be in the international stage. If mailing procedures are utilized to obtain a date, the express mail procedure of 37 CFR 1.10 must be used (because international application papers are not covered by an ordinary certificate of mailing, 37 CFR 1.8(2)(xi)).

NOTE: Documents and fees must be clearly identified as a submission to enter the national stage under 35 USC 371. Otherwise, the submission will be considered as being made under 35 USC 111. 37 CFR 1.494(f).

DECLARATION OR OATH

- I. ☒ No original declaration or oath was filed. Enclosed is the original declaration or oath for this application.

NOTE: For surcharge fee for filing declaration after filing date, complete item IV(2).

NOTE: Acceptable minimums in the declaration in an ordinarily filed U.S. application for identification of the specification to which it applies are the name of the inventor and (1) serial number, (2) attorney docket number that was on the application as filed and the filing date, (3) title of the invention and filing date, (4) title of invention and reference to a specification that is attached to the declaration at the time of execution and filed with the declaration, or (5) title of invention and a statement by a registered attorney that the application filed in the PTO is the application that the inventor executed by signing the declaration. If identification (4) is used, it must be accompanied by a statement that the "attached" specification is a copy of the specification and any amendments thereto that were filed in the PTO to obtain the filing date. Such a statement must be a verified statement if made by a person not registered to practice before the PTO. Notice of September 12, 1983 (1035 O.G. 3).

NOTE: Another minimum found acceptable in the declaration is the filing date (i.e., date of express mail) and the express mail number, useful where the serial number is not yet known. But note the practice where the express mail deposit is a Saturday, Sunday or holiday within the District of Columbia. 37 CFR 1.10(c).

NOTE: 37 CFR 1.41(a) points out that "Full names must be stated, including the family name and at least one given name without abbreviation together with any other given name or initial."

(complete (a) or (b), if applicable)

Attached is a

- (a) ☐ Statement by a registered attorney that the application filed in the PTO is the application that the inventor executed by signing the declaration.
- (b) ☐ Statement that the "attached" specification is a copy of the specification and any amendments thereto that were filed in the PTO to obtain the filing date.
- (c) ☒ Submission of Sequence Listing and Statement in Support of Filing a Sequence Listing.

AMENDMENT

II. (complete as applicable)

- ☐ An amendment in accordance with 37 C.F.R. § 1.121 is attached.
- ☐ The attached amendment cancels claims _____ inclusively.

SMALL ENTITY STATUS

V. A statement that this filing is by a small entity

NOTE: See 37 CFR 1.28(a).

(check and complete applicable items)

- a. ☐ is attached.
was filed on _____ (original).
b. ☐ A separate refund request accompanies this paper.

EXTENSION OF TIME

(complete (a) or (b), as applicable)

VI.

The proceedings herein are for a patent application. The provisions of 37 C.F.R. § 1.136(a) apply.

- (a) ☐ Applicant petitions for an extension of time, the fees for which are set out in 37 C.F.R. § 1.17(a)(1)-(4), for the total number of months checked out below:

Extension (months)	Fee for over than small entity _____	Fee for small entity
<input type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input type="checkbox"/> two months	\$ 400.00	\$200.00
<input type="checkbox"/> three months	\$ 920.00	\$460.00
<input type="checkbox"/> four months	\$1,440.00	\$720.00

Fee \$ _____

If an additional extension of time is required, please consider this a petition therefore.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured. The fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____.

or

- (b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

TOTAL FEE DUE

VII. The total fee due is:

Completion fee(s) \$ 170.00
Extension fee (if any) \$ _____

TOTAL FEE DUE \$ 170.00

PAYMENT OF FEES

VIII.

☒ Enclosed is a check in the amount of \$ \$170.00.
☐ Charge Account No. _____ in the amount of \$ _____.
A duplicate of this request is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

AUTHORIZATION TO CHARGE ADDITIONAL FEES

IX.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges.

NOTE: "A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 CFR 1.136(a)(3).

NOTE: "Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 CFR 1.26(a).

- ☒ The Commissioner is hereby authorized to charge the following additional fees that may be required by this paper, and during the entire pendency of this application, to Account No. 04-1105
- ☒ 37 C.F.R. 1.492(a)(2), 1.492(a)(3), or 1.492(a)(5) (filing fees)
- ☒ 37 C.F.R. 1.492(b) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing, or on later presentation, must only be paid, or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

- ☒ 37 C.F.R. 1.17 (application processing fees)
- ☒ 37 C.F.R. 1.17(a)(1)-(5)(extension fees pursuant to § 1.136(a).

WARNING: While 37 CFR 1.17(a), (b), (c) and (d) deal with extensions of time under § 1.136(a), this authorization should be made only with the knowledge that: "Submission of the appropriate extension fee under 37 CFR 1.136(a) is to no avail unless a "quest or petition for extension is filed." (Emphasis added). Notice of November 5, 1985 (1060 O.G. 27).

- ☐ 37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311 (b)).

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).

NOTE: 37 CFR 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying . . . issue fee." From the wording of 37 CFR 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

[] 37 C.F.R. 1.492(e) and (f) (surcharge fees for filing the declaration and/or an English translation of an international application later than 20 months from the earliest claimed priority date)

WARNING: It is suggested that you always check this last authorization.

Reg. No. 38,256

Tel. No.: (617) 439-4444

Customer No. 21874


SIGNATURE OF PRACTITIONER

Christine O'Day
(type or print name of practitioner)

Edwards & Angell, LLP
P.O. Box 9169
P.O. Address

Boston, MA 02209

#169136



Rec'd PCT/PTO 25 MAR 2003

Docket No.56761 (71526)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: SUGIYAMA et al.
Serial No.: 10/303,678 Group: Not Yet Assigned
Filing Date: January 11, 2001 Examiner: Not Yet Assigned
Title: INTERSTRAND CROSSLINKING AGENTS FOR DNA AND
COMPOUNDS THEREFOR

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

**LETTER ACCOMPANYING
RESPONSE TO NOTIFICATION OF DEFECTIVE RESPONSE**

Applicants are in receipt of the Notification of Defective Response mailed February 21, 2003. In response thereto, Applicants enclose a substitute sequence listing and preliminary amendment, related statements and transmittals.

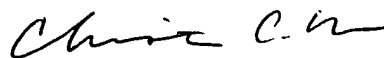
Applicants also note that the above-referenced Notification of Defective Response indicates that a surcharge in the amount of \$130 is due for late submission of the declaration. Applicants note that the \$130 surcharge was already submitted (along with the declaration) in the Completion of Filing Requirements filed on May 23, 2002. In particular, Applicants submitted a check for \$170, which amount included \$130 for the declaration surcharge and \$40 for recordation of an assignment. Copies of the noted check and the return receipt postcard for the Completion of Filing Requirements are attached as evidence thereof.

Kindly telephone the undersigned attorney should anything further be required to advance the application to substantive examination.

Early and favorable examination of the application is respectfully requested.

SUGIYAMA et al.
U.S.S.N. 10/303,678
Page 2

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Christine C. O'Day", positioned above a horizontal line.

Christine C. O'Day
(Reg. No.: 38,256)
EDWARDS & ANGELL, LLP
P.O. Box 9169
Boston, MA 02209
Tel. (617) 439-4444

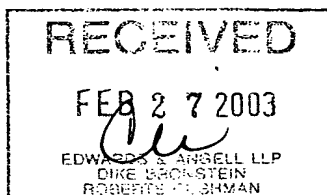


UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents, Box PCT
 United States Patent and Trademark Office
 Washington, D.C. 20231
 www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/030,678	Hiroshi SUGIYAMA	56761(71526)

Peter F Corless
 Edwards & Angell
 P O Box 9169
 Boston, MA 02209



INTERNATIONAL APPLICATION NO.	
PCT/JP01/03756	
I.A. FILING DATE	PRIORITY DATE
05/01/2001	05/12/2000

CONFIRMATION NO. 8991
 371 FORMALITIES LETTER



OC000000009546475

Date Mailed: 02/21/2003

NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated Office (37 CFR 1.494):

- U.S. Basic National Fee
- Priority Document
- Assignee Statement
- Biochemical Sequence Diskette
- Biochemical Sequence Listing
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Information Disclosure Statements
- Oath or Declaration
- Request for Immediate Examination

Reply to Not. of Defective Resp.
 Edwards & Angell LLP
 Dike, Bronstein, Roberts & Cushman
 101 Federal St. Boston, MA 02110
 Date Rec'd 2/27/03
 Docketed For 3/7/03-3/21/03
 By CW
 Approved _____

Sequence Listing
 Edwards & Angell LLP
 Dike, Bronstein, Roberts & Cushman
 101 Federal St. Boston, MA 02110
 Date Rec'd 2/27/03
 Docketed For 3/7/03-3/21/03
 By CW
 Approved _____

Applicant's response filed 05/23/2002 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 04/11/2002 have not been completed.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- \$130 Surcharge for providing the oath or declaration later than the appropriate 20 months from the priority date (37 CFR 1.492(e)) is required.

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under

37 CFR 1.136(a).**SUMMARY OF FEES DUE:**

Total additional fees required for this application is **\$130** for a Large Entity:

- **\$130** Late oath or declaration Surcharge.

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
 - see the enclosed error report
 - **APPLICANT MUST PROVIDE:**
 - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
 - For Rules Interpretation, call (703) 308-4216
 - To Purchase PatentIn Software, call (703) 306-2600
 - For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

FRANCINE YOUNG

Telephone: (703) 305-3662

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/030,678	PCT/JP01/03756	56761(71526)



Rec'd PCT/PTO 25 MAR 2003

Practitioner's Docket No. 56761 (71526)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: SUGIYAMA et al.

Serial No.: 10/303,678

Group: Not Yet Assigned

Filing Date: January 11, 2001

Examiner: Not Yet Assigned

Title: INTERSTRAND CROSSLINKING AGENTS FOR DNA AND
COMPOUNDS THEREFOR

Assistant Commissioner for Patents
Washington, D.C. 20231

AMENDMENT TRANSMITTAL

1. Transmitted herewith is an amendment for this application.

STATUS

2. Applicant is
☐ a small entity.
☒ other than a small entity.

EXTENSION OF TERM

NOTE: "Extension of Time in Patent Cases (Supplement Amendments) — If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. 1.8(a))

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

- ☒ deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

FACSIMILE

- ☐ transmitted by facsimile to the Patent and Trademark Office.

Susan M. Dillon
Signature

Date: 3/20/03

Susan M. Dillon
(type or print name of person certifying)

If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of December 10, 1985 (1061 O.G. 34-35).

NOTE: See 37 C.F.R. 1.645 for extensions of time in interference proceedings, and 37 C.F.R. 1.550(c) for extensions of time in reexamination proceedings.

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply.

(complete (a) or (b), as applicable)

(a) ☐ Applicant petitions for an extension of time under 37 C.F.R. 1.136 (fees: 37 C.F.R. 1.17(a)(1)-(4)) for the total number of months checked below:

	Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/>	one month	\$110.00	\$55.00
<input type="checkbox"/>	two months	\$410.00	\$205.00
<input type="checkbox"/>	three months	\$930.00	\$465.00
<input type="checkbox"/>	four months	\$1,450.00	\$725.00
<input type="checkbox"/>	five months	\$1,970.00	\$985.00

Fee: \$ _____

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured. The fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

OR

(b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

FEE FOR CLAIMS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

(Col. 1) (Col. 2) (Col. 3) SMALL ENTITY					OTHER THAN A SMALL ENTITY			
Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Addit. Fee	OR	Rate	Addit. Fee
Total	* Minus	**	=	x \$9 =	\$0		x \$18 =	\$
Indep.	* Minus	***	=	x \$42 =	\$0		x \$84 =	\$ 0
[] First Presentation of Multiple Dependent Claim				+ \$140 =	\$0		+ \$280 =	\$ 0
Total						OR	Total	
Addit. Fee					\$		Addit. Fee	\$

- * If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.
 ** If the "Highest No. Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest No. Previously Paid For" IN THIS SPACE is less than 3, enter "3".
 The "Highest No. Previously Paid For" (Total or Indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.

WARNING: "After final rejection or action (§ 1.113) amendments may be made canceling claims or complying with any requirement of form which has been made." 37 C.F.R. 1.116(a) (emphasis added).

(complete (c) or (d), as applicable)

- (c) ☒ No additional fee for claims is required.
OR
 (d) ☐ Total additional fee for claims required \$ _____.

FEE PAYMENT

5. ☐ Attached is a check in the sum of \$ _____.
☐ Charge Account No. _____ the sum of \$ _____.
 A duplicate of this transmittal is attached.

FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, (1065 O.G. 31-33).

6. ☒ If any additional extension and/or fee is required, charge Account No. 04-1105.

AND/OR

[X] If any additional fee for claims is required, charge Account No. 04-1105.



SIGNATURE OF PRACTITIONER

Reg. No. 38,256

Christine C. O'Day

(type or print name of practitioner)

Tel. No. (617) 439-4444

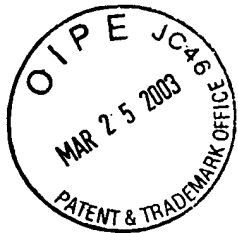
EDWARDS & ANGELL, LLP

P.O. Box 9169

P.O. Address

Customer No. 21874

Boston, Massachusetts 02209



PFC/CCO/JBA

Mailing Date: **May 23, 2002**

Client: **71526**

Attorney/Sec: **PFC/CCO:smd**

Inventors: **H. Sugiyama et al.**

Docket No.: **56761**

Serial No.: **10/030,678**

Filing Date: **1/11/02**

Patent No.:

Grant Date:

The dating stamp of the Patent and Trademark Office hereon will be taken as the date of filing of:

Completion of Filing Requirements; Executed Declaration/Power of Attorney; Recordation Form Cover Sheet; Executed Assignment Form; Check in the amount of \$170.00; Certificate of Express Mailing Label No. EV097154991US; Copy of Notification of Missing Requirements.

Due Date: **6/11/02**

JCO2 Rec'd PCT/PTO 23 MAY 2002



EDWARDS & ANGELL LLP
 COUNSELLORS AT LAW
 since 1894
 101 Federal Street
 Boston, MA 02110



www.fleet

62-36/112

No.

707830

CHECK DATE
 May 14, 2002

CHECK NO.
 707830

ONE HUNDRED SEVENTY AND 00/100 DOLLARS

CHECK AMOUNT
 \$***170.00

Commissioner of Patents & Trademarks

Boston Main Account
 Two Signatures Required For Amounts Exceeding \$2000.00
 VOID IF 180 DAYS OR OLDER

Janet G. Burke

⑈ 707830 ⑈ ⑆ 011200365193550 27633 ⑈

EDWARDS & ANGELL LLP
 COUNSELLORS AT LAW

Boston Main Account

MISSION Commissioner of Patents & Trademarks

NUMBER

707830

Invoice No.	Invoice Date	Description	Invoice Amount	Discount	Payment Amount
26.56761A	05/14/2002	for PTO codes 154, 581	\$170.00	\$0.00	\$170.00